

## Gramoxone Adjuvant Study-1.

00-7-S40

**OBJECTIVE:** Evaluate the impact of enhancing deposition with various adjuvants on weed control with Gramoxone.

**SUMMARY:** All Gramoxone Extra treatments controlled greater than 90% of mouseear chickweed, horseweed, and common lambsquarters except Gramoxone Extra plus 30% polyacrylamide plus Penetrate II. The addition of polyacrylamide to Gramoxone Extra plus Penetrate II reduced control of mouseear chickweed, horseweed, and common lambsquarters by 13, 18, and 19% at 7 days after treatment, respectively. This reduced control is likely due to reduced spray coverage.

### HERBICIDE/ADJUVANTS

GRAMOXONE EXTRA 2.5 SL  
30% POLYACRYLAMIDE 100 LIQ  
PENETRATE II 100 LIQ  
PX330 A 100 DRY  
PX332 100 DRY

### WEEDS

CHICKWEED, MOUSEEAR  
HORSEWEED  
LAMBSQUARTERS, COMMON

### CROP

NON-CROP

Bryan Young

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SOUTHERN ILLINOIS UNIVERSITY

## Gramoxone Adjuvant Study-1.

Project Code: 00-7-S40      Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

Weed Code	Common Name	Scientific Name
1. CERVU	CHICKWEED, MOUSEEAR	CERASTIUM VULGATUM L.
2. ERICA	HORSEWEED	CONYZA CANADENSIS (L.) CRONG.
3. CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.

Crop 1:                      NONE NON-CROP                      Variety:      NA

Plot Width, Unit:	10 FT	Plot Length, Unit:	29 FT	Reps:	3
Tillage Type:	REDUCED-TILL	Study Design:	RCB		
Previous Crop, Year:	GLXMA, 1999				

Soil Name:	HOSMER	% OM:	2.2	pH:	6.8	CEC:	11
Texture:	SILT LOAM	P <sub>1</sub> :	64 LB/A,	K:	271 LB/A		

## APPLICATION DESCRIPTION

	A
Application Date:	May-19-00
Time of Day:	6:00
Application Method:	SPRAY
Application Timing:	BURNDOWN
Applic. Placement:	BROFOL
Air Temp., Unit:	68 F
% Relative Humidity:	98
Wind Velocity, Unit:	2-3 MPH
Dew Presence (Y/N):	N
Soil Moisture:	NORMAL
% Cloud Cover:	100

## CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	NA
Height, Unit:	NA

## WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code:	CERVU
Stage(leaves):	10+
Height(inches):	7-10
Density:	HIGH

Weed 2 Code:	ERICA
Stage(leaves):	10+
Height(inches):	15-25
Density:	MEDIUM

Weed 3 Code:	CHEAL
Stage(leaves):	10+
Height(inches):	10-17
Density:	LOW

## APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO, SPRAY
Operating Pressure:	40 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	DG110015 VS
Boom Length, Unit:	7.33 FT
Spray Volume, Unit:	10 GPA

## NOTES:

Not harvested.

TABLE. GRAMOXONE ADJUVANT STUDY-1. PROJECT CODE:00-7-S40

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	CONTROL, DAYS AFTER BURNDOWN								
							CERVU			ERICA			CHEAL		
							3	7	14	3	7	14	3	7	14
1 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	98	99	99	95	93	93	99	98	96
1 PX332	100 DRY	0.045	% W/W	6.0 OZ/100 GAL	BURNDOWN	A									
1 PENETRATE II	100 LIQ	0.25	% V/V	32.0 OZ/100 GAL	BURNDOWN	A									
2 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	99	99	99	96	95	95	99	99	99
2 PX332	100 DRY	0.0525	% W/W	7.0 OZ/100 GAL	BURNDOWN	A									
2 PENETRATE II	100 LIQ	0.25	% V/V	32.0 OZ/100 GAL	BURNDOWN	A									
3 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	96	99	99	95	96	96	99	99	99
3 PX332	100 DRY	0.06	% W/W	8.0 OZ/100 GAL	BURNDOWN	A									
3 PENETRATE II	100 LIQ	0.25	% V/V	32.0 OZ/100 GAL	BURNDOWN	A									
4 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	96	99	99	98	99	99	97	98	99
4 PX332	100 DRY	0.0675	% W/W	9.0 OZ/100 GAL	BURNDOWN	A									
4 PENETRATE II	100 LIQ	0.25	% V/V	32.0 OZ/100 GAL	BURNDOWN	A									
5 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	96	99	99	98	96	96	98	99	99
5 PX332	100 DRY	0.075	% W/W	10.0 OZ/100 GAL	BURNDOWN	A									
5 PENETRATE II	100 LIQ	0.25	% V/V	32.0 OZ/100 GAL	BURNDOWN	A									
6 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	88	86	93	85	80	80	80	80	76
6 30% POLYACRYLAMIDE	100 LIQ	0.0312	% V/V	4.0 OZ/100 GAL	BURNDOWN	A									
6 PENETRATE II	100 LIQ	0.25	% V/V	32.0 OZ/100 GAL	BURNDOWN	A									
7 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	98	99	99	98	98	96	99	99	99
7 PENETRATE II	100 LIQ	0.25	% V/V	32.0 OZ/100 GAL	BURNDOWN	A									
8 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	98	99	99	96	96	97	96	94	96
8 PX332	100 DRY	0.075	% W/W	10.0 OZ/100 GAL	BURNDOWN	A									
9 GRAMOXONE EXTRA	2.5 SL	0.625	LB A/A	2.0 PT/A	BURNDOWN	A	97	99	99	96	95	96	97	98	96
9 PX330 A	100 DRY	0.3	% W/W	2.5 LB/100 GAL	BURNDOWN	A									
10 NONTREATED							0	0	0	0	0	0	0	0	0
LSD							5	8	6	12	12	8	11	12	14
P							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

1. PROTOCOL: PRECISION LABS.
2. TREATMENT 6 WAS VERY THICK AND REQUIRED 45 PSI TO BE SPRAYED, EVEN THEN THE PATTERN WAS ONLY ABOUT 60 DEGREES.
3. RATING DATES:  
3 DA BURNDOWN, 7 DA BURNDOWN, AND 14 DA BURNDOWN ON MAY-22-00, MAY-26-00, AND JUN-2-00, RESPECTIVELY.